AMENDMENTS TO THE CLAIMS

Please amend the claims as follows. This listing will replace all prior versions and listings of claims in the Application. Claims 1-3, 8-11, 13-15, and 19-20 have been amended.

Listing of Claims

1.   (Currently amended) A data processing system comprising:

a display device for displaying display screen elements <u>within a variable screen</u> <u>layout</u>, ~~a positioning of each of the display screen elements on a display being variable~~ ~~with respect to the other display screen elements~~;

an input device for applying a variable tactile sensation to a user; and

a processing device for generating display screen data comprising data for each of the display screen elements <u>within the variable screen layout</u> and sending the display screen data to the display device;

wherein the processing device dynamically generates a tactile sensation control pattern that defines a force pattern associated with all of the display screen elements <u>within the variable screen layout</u> as a function of <u>(1) a data structure that defines different</u> <u>tactile sensation force patterns for each display screen element within the variable screen</u> <u>layout based upon respective types of display elements and (2)</u> an arrangement of the display elements <u>within the variable screen layout,</u> ~~to be displayed on the display screen~~ at the time that the display screen data is sent to the display device<u>,</u> and stores the dynamically generated tactile sensation control pattern so that subsequently the tactile sensation applied to the user via the input device while the display elements are being displayed on the display screen is calculated by the processing device in accordance with the dynamically generated tactile sensation control pattern.

2. (Currently amended) A data processing system according to Claim 1, wherein ~~the processing unit dynamically connects individual tactile sensation patterns in accordance with the arrangement of the display elements to be displayed on the display screen at the time that the display screen data is sent to the display device, and stores the connected individual tactile sensation patterns as the dynamically generated tactile sensation control pattern,~~ the ~~individual~~ <u>different</u> tactile sensation patterns indicate the relationship between input data generated by the input device and the tactile sensation for each display element ~~and are previously determined according to the types of the display elements~~.

3. (Currently amended) A data processing system according to Claim 2, wherein the display elements that each have ~~an individual~~ <u>a different</u> tactile sensation pattern <u>stored by type in the data structure</u> comprise (1) display objects for accepting an operation selected by the user and (2) a space between the display objects, the space being a portion on the display screen where the display objects are not present.

4. (Previously presented) A data processing system according to Claim 2, wherein the input device comprises an operation unit rotatable by the user and an actuator for applying a force to the operation unit corresponding to the direction of rotation of the operation unit,

the dynamically generated tactile sensation control pattern indicates a relationship between the rotational angle of the operation unit and the force applied to the operation unit, and

the processing device controls the force applied by the actuator in accordance with the dynamically generated tactile sensation control pattern.

5. (Original) A data processing system according to Claim 2, wherein the tactile sensation applied to the user is based upon the input data from the input device which indicates the positions of the display elements within a display range.

3

6.　　(Original) A data processing system according to Claim 5, wherein the input device is a pointing device for inputting coordinates on the display screen.

7.　　(Original) A data processing system according to Claim 5, wherein the input device is a haptic commander.

8.　　(Currently amended) A method for applying a variable tactile sensation to a user through an input device, the method comprising:

　　dynamically generating variable ~~display~~ screen definition data comprising data for display elements to be displayed within a screen layout on a display device, the screen layout of the display elements being variable;

　　sending the variable ~~display~~ screen definition data to the display device;

　　dynamically generating a new tactile sensation control pattern when the ~~display~~ variable screen definition data is sent to the display device, the new tactile sensation control pattern being calculated as a function of (1) the variable screen definition data that defines ~~defining a pattern of tactile sensation associated with~~ all of the individual display elements to be displayed within ~~a single~~ the screen layout, and (2) an object attribute table that defines different tactile sensation force patterns for each display element in the screen layout based upon respective types of display elements, the new tactile sensation control pattern representing ~~being dynamically generated by calculating~~ a relationship between input data to be received from the input device and the tactile sensation in accordance with an arrangement of all of the display elements to be displayed within the ~~single~~ screen layout on a display screen of the display device;

　　resetting a tactile sensation control pattern, that controls tactile sensation to be applied, to ~~storing~~ the new tactile sensation control pattern dynamically generated; and

　　subsequently controlling the tactile sensation associated with each of the display elements displayed based upon the input data from the input device in accordance with the ~~stored~~ new tactile sensation control pattern, whereby a variable tactile sensation is

4

applied to the user through the input device.

9.   (Currently amended) A method for applying a variable tactile sensation to the user through an input device according to Claim 8, wherein ~~the tactile sensation control pattern is calculated by connecting separate tactile sensation patterns associated with individual display elements in accordance with the arrangement of the display elements to be displayed on the display screen at the time that the display screen data is sent to the display device,~~ the ~~separate~~ <u>different</u> tactile sensation <u>force</u> patterns (1) <u>indicate</u> ~~indicating~~ the relationship between the input data and the tactile sensation for individual display elements and (2) are previously determined according to the types of the display element<u>s</u>.

10.   (Currently amended) A method for applying a variable tactile sensation to the user through an input device according to Claim 9, wherein the display elements having ~~separate~~ <u>different</u> tactile sensation <u>force</u> patterns comprise (1) display objects for accepting an operation selected by the user and (2) a space between the display objects, the space being a portion in the display screen where the display objects are not present.

11.   (Currently amended) A method for applying a variable tactile sensation to the user through an input device according to Claim 9, wherein the input device comprises an operation unit rotatable by the user and an actuator for applying a force to the operation unit corresponding to the direction of rotation of the operation unit, and the <u>new</u> tactile sensation control pattern indicates a relationship between the rotational angle of the operation unit and the force applied by the actuator.

5

12.   (Original) A method for applying a variable tactile sensation to the user through an input device according to Claim 9, wherein the tactile sensation applied to the user is based upon the input data from the input device which indicates positions of the display elements within a display range.

13.   (Currently amended) A computer program stored on a storage medium which is read and executed by a computer system comprising a display device and an input device for applying a variable tactile sensation to a user, the computer program directs the computer system to

dynamically generate display screen data comprising data for display elements to be displayed, an arrangement of the display elements within a variable screen layout being variable;

send the dynamically generated display screen data to the display device;

dynamically calculate a relationship between input data to be received from the input device and the tactile sensation, at the time that the dynamically generated display screen data is sent to the display device, in accordance with (1) the dynamically generated display screen data defining the variable arrangement of the display elements to be displayed on a display screen within the variable screen layout and (2) object attribute data defining different tactile sensation force patterns for each display element within the variable screen layout based upon respective types of display elements; at the time that the display screen data is sent to the display device, and store

reset a tactile sensation control pattern that controls a tactile sensation to be applied via the input device to the dynamically calculated relationship as a tactile sensation control pattern during runtime, so that the tactile sensation subsequently applied to the user when the display elements are displayed on the a display screen is based upon the input data received from the input device in accordance with the dynamically calculated relationship tactile sensation control pattern.

6

14.   (Currently amended) A computer program according to Claim 13, wherein, each of the display elements to be displayed has an associated individual tactile sensation pattern and the computer system (1) dynamically connects the individual different tactile sensation force patterns in accordance with the variable arrangement of the display elements to be displayed on the display screen at the time that the display screen data is sent to the display device, and (2) stores the dynamically connected individual different tactile sensation force patterns as the tactile sensation control pattern, the individual tactile sensation patterns (a) indicate the relationship between the input data and the tactile sensation and (b) are previously determined according to the types of the display elements.

15.   (Currently amended) A computer program according to Claim 14, wherein the display elements that have associated individual different tactile sensation force patterns comprise (1) display objects for accepting an operation selected by the user and (2) a space between the display objects, the space being a portion on the display screen where the display objects are not present.

16.   (Previously presented) A computer program according to Claim 14, wherein the input device comprises an operation unit rotatable by the user and an actuator for applying a force to the operation unit corresponding to the direction of rotation of the operation unit,

the computer system dynamically stores the tactile sensation control pattern as a pattern which indicates a relationship between the rotational angle of the operation unit and the force applied to the operation unit and controls the force applied by the actuator in accordance with the tactile sensation control pattern.

17.   (Original) A computer program according to Claim 14, wherein the tactile sensation applied to the user is based upon the input data from the input device which indicates the positions of the display elements within a display range.

18.   (Original) A computer program according to Claim 17, wherein the input device is a pointing device for inputting coordinates on the display screen.

19.   (Currently amended) A storage medium which stores a computer program which is read and executed by a computer system comprising a display device and an input device for applying a variable tactile sensation to a user, wherein the computer program directs the computer system to

dynamically generate ~~display~~ screen definition data comprising data for display elements, an arrangement of the display elements being variable;

send the dynamically generated ~~display~~ screen definition data to the display device;

dynamically calculate a relationship between input data to be received from the input device and the tactile sensation, at the time that the dynamically generated screen definition data is sent to the display device, in accordance with (1) the dynamically generated screen definition data defining the variable arrangement of all of the display elements ~~to be displayed on a display screen~~ and (2) object attribute data defining different tactile sensation force patterns for each display element within the dynamically generated screen definition data based upon respective types of display elements ~~at the time that the display screen data is sent to the display device~~;

dynamically reset ~~store the dynamically calculated relationship as~~ a tactile sensation control pattern to the dynamically calculated relationship; and

subsequently control the tactile sensation associated with each display element displayed on ~~the~~ a display screen based upon the input data received from the input device in accordance with the dynamically reset tactile sensation control pattern.

8

20.   (Currently amended) A storage medium according to Claim 19, wherein the computer system (1) dynamically connects individual tactile sensation patterns, each individual tactile sensation pattern being associated with a display element, in accordance with the variable arrangement of the display elements to be displayed on the display screen at the time that the display screen data is sent to the display device, and (2) stores the dynamically connected individual tactile sensation patterns as the <u>dynamically reset</u> tactile sensation control pattern, the individual tactile sensation patterns ~~(a)~~ indicate the relationship between the input data and the tactile sensation ~~and (b) are previously determined according to the types of the display elements.~~